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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/943,424	KLIGER ET AL.	
	Examiner	Art Unit	
	CASSANDRA DECKER	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 April 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *71,73-82,84-96 and 98-106* is/are pending in the application.

4a) Of the above claim(s) *90-95* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *71,73-82,84-89,96 and 98-106* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1 April 2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Claim Objections

1. Claims 71, 75, 76, 81, 82, 85, 87-89, 96, and 106 objected to because of the following informalities. Appropriate correction is required.

For Claim 71 (line 2), Claim 82 (line 9), and Claim 96 (line 5), "a network master module" is inconsistent with other mentions of "the master module". It is suggested that "a network master module" be corrected to —a master module---.

For Claims 75 and 85, it is suggested that “the plurality of network module” be corrected to ---the plurality of network modules---.

For Claim 76, it is suggested that “the given network module” be corrected to ---the selected network module---.

For Claims 81 and 106, it is suggested that “a module” be corrected to ---a network module---.

For Claim 87, "a selected network module" appears to have antecedent basis in Claim 82.

For Claims 88 and 89, the phrase “adapted to” is non-limiting language. Claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure. (MPEP 2111.04)

Claim Rejections – 35 USC 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 71, 73-76, 78-82, 84-86, 88-89, 96, 98-101, and 103-106 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petler (US 6081519) in view of Silverman (US 6307862) and Bell (US 6229818).

For Claim 71, Petler teaches, in a home network having a plurality of network modules, each of said plurality of network modules being connected to a coax backbone, a method for communicating over the coax backbone between the plurality of network modules (see column 4 lines 34-50), the method comprising:

using the master module to receive requests sent over the coax backbone from the plurality of network modules for bandwidth to transmit bursts (see column 6 lines 8-23, column 10 lines 20-50);

establishing an order of transmission opportunities for the plurality of network modules to follow when transmitting bursts to other network modules via the coax backbone (see column 6 lines 24-45, column 2 lines 9-34); and

using the master module to transmit an allocation burst over the coax backbone that allocates a transmission opportunity to each of the plurality of network modules to transmit bursts to other network modules via the coax backbone (see column 2 lines 9-55, column 7 lines 20-45), said transmission opportunity that depends at least in part on the amount of data ready for transmission in a selected transmission cycle (see column 6 lines 8-23 and 45-67), said allocation burst being based on said transmission order (see column 6 lines 9-34).

As applied above, Petler does not teach one of said plurality of network modules being a network master module; and establishing direct communication between the plurality of the network modules and a demarcation point unit, said plurality of network modules being coupled to the demarcation point unit via the coax backbone, said demarcation point unit providing an interface between the home network and an external network, said demarcation point unit being separate from the master module.

However, Silverman teaches one of said plurality of network modules being a network master module (see Figure 5 and column 2 line 60 to column 4 line 9); and establishing direct communication between the plurality of the network modules and a demarcation point unit, said plurality of network modules being coupled to the demarcation point unit via the coax backbone, said demarcation point unit providing an interface between the home network and an external network, said demarcation point unit being separate from the master module (see Figure 5 and column 2 line 60 to column 4 line 9; Figure 8 and column 4 line 66 to column 5 line 19).

Thus it would have been obvious to a person of ordinary skill in the art at the time of invention to use the demarcation unit and master module taught by Silverman in the home networking method taught by Petler. The motivation for doing so would be to provide a secure means to separate the home network from the cable delivery network while allowing existing wiring to be used for the home network.

The references as applied above do not teach establishing direct communication between each of the plurality of network modules over the coax backbone. However, Bell teaches establishing direct communication between each of the plurality of network

modules over the coax backbone (see column 5 lines 22-59, column 6 lines 54-64, and column 8 lines 17-25).

Thus it would have been obvious to a person of ordinary skill in the art to allow the network modules to communicating direct over an existing physical medium (see column 2 lines 6-12), as taught by Bell. The motivation for doing so would be to reduce the load on the master module taught by Silverman and improve the throughput in the home network.

For Claim 82, Petler teaches a home network comprising:

a coax backbone (see column 4 lines 33-50);

a plurality of network modules, each of said plurality of network modules being connected to the coax backbone (see column 4 lines 33-50),

said plurality of network modules being in communication via at least one splitter over the coax backbone (see column 4 lines 33-62, Figure 1 item 220); and

the master module that receives requests from the plurality of network modules over the coax backbone, the requests being for bandwidth to transmit bursts over the coax backbone to other network modules (see column 6 lines 8-23, column 10 lines 20-50),

the master module that establishes a transmission order of transmission opportunities for the plurality of network modules to follow when transmitting bursts to other network modules (see column 6 lines 24-45, column 2 lines 9-34) and that transmits a burst over the coax backbone that allocates a transmission opportunity to each of the plurality of network modules to transmit bursts (see column 2 lines 9-55,

column 7 lines 20-45), said burst being based on said transmission order (see column 6 lines 9-34), said transmission order being based at least in part on said received requests (see column 10 lines 20-50, column 6 lines 8-67), wherein each of the plurality of network modules is configured to communicate with other network modules via the coax backbone (see column 6 lines 8-23) and wherein a parameter of a transmission opportunity for a selected network module depends at least in part on an amount of data ready for transmission at the selected network module in a selected transmission cycle (see column 6 lines 8-23, column 6 lines 45-67).

Petler does not teach said plurality of network modules being in direct communication with a demarcation point unit over the coax backbone; said demarcation point unit providing an interface between the home network and an external network, said demarcation point unit being separate from a master module; and the network master module being connected to the coax backbone.

However, Silverman teaches said plurality of network modules being in direct communication with a demarcation point unit over the coax backbone (see Figure 5, column 2 line 60 to column 4 line 9, Figure 8, column 4 line 66 to column 5 line 19);

said demarcation point unit providing an interface between the home network and an external network, said demarcation point unit being separate from a master module (see Figure 5, column 2 line 60 to column 4 line 9, Figure 8, column 4 line 66 to column 5 line 19); and

the network master module being connected to the coax backbone (see Figure 5, column 2 line 60 to column 4 line 9, Figure 8, column 4 line 66 to column 5 line 19).

Thus it would have been obvious to a person of ordinary skill in the art at the time of invention to use the demarcation unit and master module taught by Silverman in the home networking method taught by Petler. The motivation for doing so would be to provide a secure means to separate the home network from the cable delivery network while allowing existing wiring to be used for the home network.

The references as applied above do not teach establishing direct communication between each of the plurality of network modules over the coax backbone. However, Bell teaches establishing direct communication between each of the plurality of network modules over the coax backbone (see column 5 lines 22-59, column 6 lines 54-64, and column 8 lines 17-25).

Thus it would have been obvious to a person of ordinary skill in the art to allow the network modules to communicating direct over an existing physical medium (see column 2 lines 6-12), as taught by Bell. The motivation for doing so would be to reduce the load on the master module taught by Silverman and improve the throughput in the home network.

For Claim 96, Petler teaches an integrated circuit storing computer-executable instructions which, when executed by a processor on a computer system, perform a method, the method comprising:

in a home network having a plurality of network modules, each of said plurality of network modules being connected to a coax backbone, said plurality of network modules communicating over the coax backbone (see column 4 lines 34-50), the communicating comprising:

using the master module to receive requests sent over the coax backbone from the plurality of network modules for bandwidth to transmit bursts (see column 6 lines 8-23, column 10 lines 20-50);

in response to receiving the requests, establishing an order of transmission opportunities for the each of the plurality of network modules to follow when transmitting bursts to other network modules (see column 6 lines 24-45, column 2 lines 9-34); and

using the master module to transmit an allocation burst over the coax backbone that allocates a transmission opportunity to each of the plurality of network modules to transmit bursts (see column 2 lines 9-55, column 7 lines 20-45), said allocation burst being based on said transmission order (see column 6 lines 9-34), said transmission opportunity that depends at least in part on the amount of data ready for transmission in a selected transmission cycle (see column 6 lines 8-23 and 45-67).

Petler does not teach one of said plurality of network modules being a network master module, establishing direct communication between two or more of the plurality of network modules over the coax backbone; and establishing direct communication between two or more of the plurality of the network modules and a demarcation point unit, said plurality of network modules being coupled to the demarcation point unit via the coax backbone, said demarcation point unit providing an interface between the home network and an external network, said demarcation point unit being separate from the master module.

However, Silverman teaches one of said plurality of network modules being a network master module (see Figure 5 and column 3 lines 12-28), establishing direct

communication between two or more of the plurality of network modules over the coax backbone (see Figure 5 and column 3 lines 12-28); and establishing direct communication between two or more of the plurality of the network modules and a demarcation point unit, said plurality of network modules being coupled to the demarcation point unit via the coax backbone, said demarcation point unit providing an interface between the home network and an external network, said demarcation point unit being separate from the master module (see column 2 line 60 to column 4 line 9; Figure 8 and column 4 line 66 to column 5 line 19).

Thus it would have been obvious to a person of ordinary skill in the art at the time of invention to use the demarcation unit and master module taught by Silverman in the home networking method taught by Petler. The motivation for doing so would be to provide a secure means to separate the home network from the cable delivery network while allowing existing wiring to be used for the home network.

The references as applied above do not teach establishing direct communication between each of the plurality of network modules over the coax backbone. However, Bell teaches establishing direct communication between each of the plurality of network modules over the coax backbone (see column 5 lines 22-59, column 6 lines 54-64, and column 8 lines 17-25).

Thus it would have been obvious to a person of ordinary skill in the art to allow the network modules to communicating direct over an existing physical medium (see column 2 lines 6-12), as taught by Bell. The motivation for doing so would be to reduce

the load on the master module taught by Silverman and improve the throughput in the home network.

For Claims 73 and 98, although Petler teaches a master module (see Figure 1 item 110 and column 2 line 65 to column 3 line 7), and Silverman teaches a master module (see Figure 5 and column 3 lines 12-28), the references as applied above do not teach designating one of the plurality of network modules to be the master module. However, Bell teaches designating one of the plurality of network modules to be the master module (see column 5 lines 22-59, column 6 lines 54-64, and column 8 lines 17-25). Thus it would have been obvious to a person of ordinary skill in the art to designate a module to operate as a master module, combining the functions of the BNU and BIU, which operate as a master module outside the home as taught by Petler. The motivation for doing so would be to improve home network security by keeping LAN communications within the home, and to allow the wide area network service provider to increase revenues by selling or leasing master modules to consumers and to offload the costs of operating the master module onto the consumers.

For Claims 74, 84, and 99, Petler further teaches synchronizing the plurality of network modules to a predetermined burst transmitted by the master module (see Figure 7).

For Claims 75, 85, and 100, Petler further teaches allocating bandwidth to each of the plurality of network modules requesting a guaranteed quality of service (see column 6 lines 8-24: CBR is the guaranteed quality of service).

For Claims 76, 86, and 101, Petler further teaches receiving over the backbone, at a selected network module, a grant signal that indicates that the given network module can transmit a burst (see column 6 lines 46-58).

For Claims 78 and 103, Petler further teaches changing the amount of allocated bandwidth (see column 6 lines 7-23).

For Claims 79, 88, and 104, Petler further teaches using the master module to change the order of transmission opportunities (see column 9 lines 10-25: the modules will transmit in a different order because each time BNU assigns a different one or more time slots to the modules).

For Claims 80 and 105, Petler further teaches using the master module to change the order of transmission opportunities and to change the amount of allocated bandwidth (see column 9 lines 10-25 and column 6 lines 7-23).

For Claims 81, 89, and 106, Petler further teaches using the master module to allocate an opportunity to a module involved in a registration process, said opportunity for transmitting a self-training burst (see column 10 lines 20-33).

4. Claims 77, 87, and 102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petler (US 6081519), Silverman (US 6307862), and Bell (US 6229818) as applied to claims 71, 82, and 96 above, and further in view of Jain et al. (US 4608685).

For Claims 77, 87, and 102, the references as applied above do does not teach transmitting, by a selected network module, an empty burst if the given network module

has no data to transmit. However, Jain teaches transmitting, by a selected network module, an empty burst if the given network module has no data to transmit (see column 6 lines 8-12). Thus it would have been obvious to a person of ordinary skill in the art to use a null, or empty, transmission in place of a heartbeat transmission. A person of ordinary skill in the art would have been able to carry out such a substitution and the results were reasonably predictable.

5. Claims 71, 73-76, 78-82, 84-86, 88-89, 96, 98-101, and 103-106 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bushmitch et al. (US 6950399) in view of Silverman (US 6307862) and Bell (US 6229818).

For Claim 71, Bushmitch teaches, in a home network having a plurality of network modules, each of said plurality of network modules being connected to a coax backbone, a method for communicating over the coax backbone between the plurality of network modules (see Figure 1 and column 3 lines 30-48), the method comprising:

using the master module to receive requests sent over the coax backbone from the plurality of network modules for bandwidth to transmit bursts (see column 1 lines 47-64);

establishing an order of transmission opportunities for the plurality of network modules to follow when transmitting bursts to other network modules via the coax backbone (see column 3 line 55 to column 4 line 19, column 5 lines 45-67: requests, grants); and

using the master module to transmit an allocation burst over the coax backbone that allocates a transmission opportunity to each of the plurality of network modules to transmit bursts to other network modules via the coax backbone (see column 1 line 47 to column 2 line 35), said transmission opportunity that depends at least in part on the amount of data ready for transmission in a selected transmission cycle (see column 2 lines 20-32 and column 5 lines 45-67), said allocation burst being based on said transmission order (see column 3 line 55 to column 4 line 19, column 5 lines 45-67).

As applied above, Bushmitch does not teach one of said plurality of network modules being a network master module; and establishing direct communication between the plurality of the network modules and a demarcation point unit, said plurality of network modules being coupled to the demarcation point unit via the coax backbone, said demarcation point unit providing an interface between the home network and an external network, said demarcation point unit being separate from the master module.

However, Silverman teaches one of said plurality of network modules being a network master module (see Figure 5 and column 2 line 60 to column 4 line 9); and establishing direct communication between the plurality of the network modules and a demarcation point unit, said plurality of network modules being coupled to the demarcation point unit via the coax backbone, said demarcation point unit providing an interface between the home network and an external network, said demarcation point unit being separate from the master module (see Figure 5 and column 2 line 60 to column 4 line 9; Figure 8 and column 4 line 66 to column 5 line 19).

Thus it would have been obvious to a person of ordinary skill in the art at the time of invention to use the demarcation unit and master module taught by Silverman in the home networking method taught by Bushmitch. The motivation for doing so would be to provide a secure means to separate the home network from the cable delivery network while allowing existing wiring to be used for the home network.

The references as applied above do not teach establishing direct communication between each of the plurality of network modules over the coax backbone. However, Bell teaches establishing direct communication between each of the plurality of network modules over the coax backbone (see column 5 lines 22-59, column 6 lines 54-64, and column 8 lines 17-25).

Thus it would have been obvious to a person of ordinary skill in the art to allow the network modules to communicating direct over an existing physical medium (see column 2 lines 6-12), as taught by Bell. The motivation for doing so would be to reduce the load on the master module taught by Silverman and improve the throughput in the home network.

For Claim 82, Bushmitch teaches a home network comprising:

a coax backbone (see Figure 1 and column 3 lines 30-48);

a plurality of network modules, each of said plurality of network modules being connected to the coax backbone (see Figure 1 and column 3 lines 30-48),

the network master module being connected to the coax backbone (see column 1 lines 47-64),

the master module that receives requests from the plurality of network modules over the coax backbone, the requests being for bandwidth to transmit bursts over the coax backbone to other network modules (see column 1 lines 47-64),

the master module that establishes a transmission order of transmission opportunities for the plurality of network modules to follow when transmitting bursts to other network modules (see column 3 line 55 to column 4 line 19, column 5 lines 45-67) and that transmits a burst over the coax backbone that allocates a transmission opportunity to each of the plurality of network modules to transmit bursts (see column 1 line 47 to column 2 line 35), said burst being based on said transmission order (see column 3 line 55 to column 4 line 19, column 5 lines 45-67), said transmission order being based at least in part on said received requests (see column 3 line 55 to column 4 line 19, column 5 lines 45-67), wherein each of the plurality of network modules is configured to communicate with other network modules via the coax backbone (see column 3 line 55 to column 4 line 19, column 5 lines 45-67) and wherein a parameter of a transmission opportunity for a selected network module depends at least in part on an amount of data ready for transmission at the selected network module in a selected transmission cycle (see column 2 lines 20-32, column 5 lines 45-67).

Bushmitch does not teach said plurality of network modules being in direct communication with a demarcation point unit over the coax backbone; and said demarcation point unit providing an interface between the home network and an external network, said demarcation point unit being separate from a master module.

However, Silverman teaches said plurality of network modules being in direct communication with a demarcation point unit over the coax backbone (see Figure 5, column 2 line 60 to column 4 line 9, Figure 8, column 4 line 66 to column 5 line 19); and

said demarcation point unit providing an interface between the home network and an external network, said demarcation point unit being separate from a master module (see Figure 5, column 2 line 60 to column 4 line 9, Figure 8, column 4 line 66 to column 5 line 19).

Thus it would have been obvious to a person of ordinary skill in the art at the time of invention to use the demarcation unit and master module taught by Silverman in the home networking method taught by Bushmitch. The motivation for doing so would be to provide a secure means to separate the home network from the cable delivery network while allowing existing wiring to be used for the home network.

The references as applied above do not teach establishing direct communication between each of the plurality of network modules over the coax backbone; and said plurality of network modules being in communication via at least one splitter over the coax backbone. However, Bell teaches establishing direct communication between each of the plurality of network modules over the coax backbone (see column 5 lines 22-59, column 6 lines 54-64, and column 8 lines 17-25); and said plurality of network modules being in communication via at least one splitter over the coax backbone (see Figure 2).

Thus it would have been obvious to a person of ordinary skill in the art to allow the network modules to communicating direct over an existing physical medium (see

column 2 lines 6-12), as taught by Bell. The motivation for doing so would be to reduce the load on the master module taught by Silverman and improve the throughput in the home network.

For Claim 96, Bushmitch teaches an integrated circuit storing computer-executable instructions which, when executed by a processor on a computer system, perform a method, the method comprising:

in a home network having a plurality of network modules, each of said plurality of network modules being connected to a coax backbone, said plurality of network modules communicating over the coax backbone, the communicating comprising:

using the master module to receive requests sent over the coax backbone from the plurality of network modules for bandwidth to transmit bursts (see column 1 lines 47-64);

in response to receiving the requests, establishing an order of transmission opportunities for the each of the plurality of network modules to follow when transmitting bursts to other network modules (see column 3 line 55 to column 4 line 19, column 5 lines 45-67: requests, grants); and

using the master module to transmit an allocation burst over the coax backbone that allocates a transmission opportunity to each of the plurality of network modules to transmit bursts (see column 1 line 47 to column 2 line 35), said allocation burst being based on said transmission order (see column 3 line 55 to column 4 line 19, column 5 lines 45-67), said transmission opportunity that depends at least in part on the amount

of data ready for transmission in a selected transmission cycle (see column 2 lines 20-32 and column 5 lines 45-67).

Bushmitch does not teach one of said plurality of network modules being a network master module, establishing direct communication between two or more of the plurality of network modules over the coax backbone; and establishing direct communication between two or more of the plurality of the network modules and a demarcation point unit, said plurality of network modules being coupled to the demarcation point unit via the coax backbone, said demarcation point unit providing an interface between the home network and an external network, said demarcation point unit being separate from the master module.

However, Silverman teaches one of said plurality of network modules being a network master module (see Figure 5 and column 3 lines 12-28), establishing direct communication between two or more of the plurality of network modules over the coax backbone (see Figure 5 and column 3 lines 12-28); and establishing direct communication between two or more of the plurality of the network modules and a demarcation point unit, said plurality of network modules being coupled to the demarcation point unit via the coax backbone, said demarcation point unit providing an interface between the home network and an external network, said demarcation point unit being separate from the master module (see column 2 line 60 to column 4 line 9; Figure 8 and column 4 line 66 to column 5 line 19).

Thus it would have been obvious to a person of ordinary skill in the art at the time of invention to use the demarcation unit and master module taught by Silverman in the

home networking method taught by Bushmitch. The motivation for doing so would be to provide a secure means to separate the home network from the cable delivery network while allowing existing wiring to be used for the home network.

The references as applied above do not teach establishing direct communication between each of the plurality of network modules over the coax backbone. However, Bell teaches establishing direct communication between each of the plurality of network modules over the coax backbone (see column 5 lines 22-59, column 6 lines 54-64, and column 8 lines 17-25).

Thus it would have been obvious to a person of ordinary skill in the art to allow the network modules to communicating direct over an existing physical medium (see column 2 lines 6-12), as taught by Bell. The motivation for doing so would be to reduce the load on the master module taught by Silverman and improve the throughput in the home network.

For Claims 73 and 98, although Bushmitch teaches a master module (see Figure 1 and column 6 lines 45-16), and Silverman teaches a master module (see Figure 5 and column 3 lines 12-28), the references as applied above do not teach designating one of the modules to be the master module. However, Bell teaches designated one of the modules to be the master module (see column 5 lines 22-59, column 6 lines 54-64, and column 8 lines 17-25). Thus it would have been obvious to a person of ordinary skill in the art to designate a module to operate as a master module, combining the functions of the CM and CMTS, which operate as a master module partially outside the home as taught by Bushmitch. The motivation for doing so would be

to improve home network security by keeping LAN communications within the home, and to allow the wide area network service provider to increase revenues by selling or leasing master modules to consumers and to offload the costs of operating the master module onto the consumers.

For Claims 74, 84, and 99, Bushmitch further teaches synchronizing the plurality of network modules to a predetermined burst transmitted by the master module (see column 4 lines 20-30).

For Claims 75, 85, and 100, Bushmitch further teaches allocating bandwidth to each of the plurality of network modules requesting a guaranteed quality of service (see column 3 lines 16-30).

For Claims 76, 86, and 101, Bushmitch further teaches receiving over the backbone, at a selected network module, a grant signal that indicates that the given network module can transmit a burst (see column 3 line 55 to column 4 line 19: grants, allocation).

For Claims 78 and 103, Bushmitch further teaches changing the amount of allocated bandwidth (see column 1 line 45 to column 2 line 35).

For Claims 79, 88, and 104, Bushmitch further teaches using the master module to change the order of transmission opportunities (see column 3 line 55 to column 4 line 19: time slots; column 5 lines 45-67: dynamic grants).

For Claims 80 and 105, Bushmitch further teaches using the master module to change the order of transmission opportunities and to change the amount of allocated

bandwidth (see column 1 line 45 to column 2 line 35, column 5 lines 45-67: dynamic grants, column 3 line 55 to column 4 line 14: TDM).

For Claims 81, 89, and 106, Bushmitch further teaches using the master module to allocate an opportunity to a module involved in a registration process, said opportunity for transmitting a self-training burst (see column 4 lines 3-18).

6. Claims 77, 87, and 102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bushmitch et al. (US 6950399), Silverman (US 6307862), and Bell (US 6229818) as applied to claims 71, 82, and 96 above, and further in view of Jain et al. (US 4608685).

For Claims 77, 87, and 102, the references as applied above do not teach transmitting, by a selected network module, an empty burst if the given network module has no data to transmit. However, Jain teaches transmitting, by a selected network module, an empty burst if the given network module has no data to transmit (see column 6 lines 8-12). Thus it would have been obvious to a person of ordinary skill in the art to use a null, or empty, transmission in place of a heartbeat transmission. A person of ordinary skill in the art would have been able to carry out such a substitution and the results were reasonably predictable.

Response to Arguments

Applicant's amendment submitted 28 April 2009 is acknowledged and accepted.

7. Applicant's arguments with respect to claims 71, 82, and 96 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CASSANDRA DECKER whose telephone number is (571) 270-3946. The examiner can normally be reached on Monday through Friday, 7:30 am to 4:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Ryman can be reached on (571) 272-3152. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cassandra Decker/
Examiner, Art Unit 2419
6/8/2009

/Daniel J. Ryman/
Supervisory Patent Examiner, Art Unit 2419